

22. (PREVIOUSLY PRESENTED) The method of claim 14, wherein transmitting the plurality of additional programs comprises: transmitting a plurality of additional programs including targeting parameters related to the viewing preferences of the viewer.

23. (PREVIOUSLY PRESENTED) The method of claim 22, wherein the targeting parameters include one or more of demographic information and additional program display schedule information.

24. (NEW) The method of claim 1, wherein the determining viewing preferences comprises: determining viewing preferences by performing a regression analysis based on the stored data and the one or more known program traits.

25. (NEW) The method of claim 14, wherein the determining viewing preferences comprises: determining viewing preferences by performing a regression analysis based on the stored data and the one or more known program traits.

#### **STATUS OF CLAIMS**

Claims 1-20, and 22-23 are pending.

Claims 1-20, and 22-23 stand rejected by the Examiner.

Claims 1 and 14 have been amended without prejudice herein.

New Claims 24-25 have been added herein.

#### **REMARKS**

Reconsideration of this application is requested.

Claims 1-20, and 22-23 stand rejected under 35 U.S.C. 103 as being obvious over Zigmond (United States Patent No. 6,698,020) in view of Schaffer (United States Patent

No. 7,051,352). This rejection is respectfully traversed. Applicant has amended Claims 1 and 14 to clarify the determining step takes into account *known program traits* as well as either *hidden program traits* or *associated program traits*. By way of example only, support for the amendments to Claims 1 and 14 may be found at pages 17-19 of the application as originally filed. Accordingly, no new matter has been added.

Claim 1 as amended recites *inter alia*,

storing data indicative of the viewer selected TV program and data indicative of at least some others of the TV programs competing with the viewer selected TV program that were not selected;

determining viewing preferences using the stored data indicative of the user selected TV program and data indicative of at least some others of the TV programs competing with the viewer selected TV program that were not selected wherein the viewing preferences are determined based on one or more known program traits and one or more hidden or associated program traits;

The Zigmond and Schaffer references both individually and in combination fail to disclose, teach or suggest such an approach.

With regard to the Zigmond reference, the examiner already concedes that Zigmond does not explicitly teach "storing data indicative of TV programs that were not selected along with data indicative of the viewer selected TV". Zigmond additionally makes no mention whatsoever of *determining viewing preferences wherein the viewing preferences are determined based on one or more known program traits and one or more hidden or associated program traits*. In particular, Zigmond recites:

The viewer and system information may further include information relating to the viewing habits of the viewers in the household. The viewing habits may be described by monitoring the times of day that programming is watched, the amount of

time spent viewing particular channels, preferred types of programming, etc. In some embodiments, ad insertion device 80 is included in a home entertainment system component such as a WebTV box that also has Internet and World Wide Web browsing capabilities. Monitoring preferred Internet sites may provide useful information to be stored in storage location 82 in order to further specify the preferences and background of the viewer. In view of the foregoing, it is to be understood that the types of viewer and system information stored in storage location 82 may be any desired data that characterizes the viewer, the features of the home entertainment system, the content of the video programming feed, the geographical location of the household, and the like. (col. 11, lines 13-30)

As shown, a detailed reading of Zigmond reveals that to the extent Zigmond determines the viewing preferences of a user, it is limited to data corresponding to the times of day that programming is watched, the amount of time spent viewing particular channels, the preferred type of programming, Internet sites visited and the like. Zigmond, however, does *not* teach, or even suggest for that matter, *determining viewing preferences wherein the viewing preferences are determined based on one or more known program traits and one or more hidden or associated program traits* – as is recited by present Claim 1. Hidden program traits include traits that are detected whenever there exists a strong co-relation between any two traits present in different programs (see e.g. Para. 94). Associated program traits include traits that have a different influence on a user's viewing habits when combined with other traits and are detected when common traits appear in viewed programs (see e.g. Para. 94). Determining viewing preferences from both known program traits as well as hidden or associated program traits is useful for more accurately characterizing the viewing preferences of a particular viewer thereby allowing for improved advertisement targeting.

As previously discussed, the examiner concedes that "Zigmond does not explicitly teach storing data indicative of TV programs that were not selected along with data indicative of the viewer selected TV" and looks to Schaffer to make up for the deficiency of Zigmond. As asserted by the examiner, Schaffer is directed to "a system and method for adaptively recommending content to a viewer where record is kept or stored of what programs have been watched and total or sample of programs not watched (Fig. 3, col.2 lines 38-67; col. 3 lines 28-42)" and "uses this viewing history (programs watched/not-watched and the characteristics they contain) to calculate or determine viewing preferences." Schaffer involves making recommendations for future TV programs based on a user's viewing history of past TV programs. In contrast, Zigmond is directed to selecting *advertisements* for video insertion based on criteria such as a user's viewing habits. Therefore, one of ordinary skill in the art would not look to Schaffer to determine how to characterize a user's viewing preference for the purpose of determining what *advertisements* to insert into a TV program.

Moreover, Schaffer does *not* teach, or even suggest for that matter, *determining viewing preferences wherein the viewing preferences are determined based on one or more known program traits and one or more hidden or associated program traits* – as is recited by present Claim 1. Schaffer only discusses determining user preferences based on feature value counts. Feature value counts are parameters which are stored in a user profile and are increased each time a viewer chooses to watch a program with each corresponding feature (See e.g. Column 2). These features are independent *known* features which are defined by an EPG database (See e.g. Column 2). In contrast, the present application contemplates using both known traits derived directly from an EPG database as well as *hidden or associated* program traits. Unlike the feature values of

Schaffer, the hidden and associated traits contemplated by the present application are not directly derived from an EPG database. Hidden traits are detected whenever there exists a strong co-relation between two or more traits present in different programs (See e.g. Para. 94). Associated traits are traits that have a different influence on a user's viewing habits when combined with other traits and are detected when common traits appear in viewed programs (See e.g. Para. 93). During the process of determining a user's viewing preferences the use of only known traits often fails to adequately determine a user's viewing preference. When known traits fail to adequately characterize the user's viewing preference, hidden or associated traits which are identified during regression analysis, are introduced. Thus, the introduction of *hidden* or *associated* traits improves the accuracy of determining a user's viewing preference.

Accordingly, as Schaffer fails to cure the deficiencies of the primary reference Zigmond, withdrawal of this 35 USC 103 rejection is requested. Applicant also requests reconsideration and removal of the rejections of Claims 2-13 as well, at least by virtue of these claims' ultimate dependence from patentably distinct base Claim 1.

Independent Claim 14 recites similar features and limitations and is likewise patentable. Reconsideration and removal of the rejection of Claim 14 is requested for at least the foregoing reasons as well. Applicant also requests reconsideration and removal of the rejections of Claims 15-20 and 22-23, at least by virtue of these claims' ultimate dependence from patentably distinct base Claim 14.

### ***New Claims***

The following summary sets forth exemplary reference characters and portions and passages in the specification where an embodiment of each new claim is

illustrated or described. The identification of reference characters and portions and passages does not constitute a representation that any claim element is limited to the embodiment illustrated at the reference character or described in the referenced portion or passage of the specification.

Applicant has added new Claim 24. New Claim 24 depends from Claim 1 and further recites "determining viewing preferences by performing a regression analysis based on the stored data and the one or more known program traits." Such determining viewer preferences by regression analysis is discussed throughout the specification, such as in Figures 5A (131) and 16 (198) and in paragraph 83 (*"However, identification of all the relevant traits and the determination of the exact liking of each viewer is a non trivial task and arrived at iteratively by a process of regression analysis."*)

Accordingly, no new matter has been added by new Claim 24.

In similar fashion, newly added Claim 25 depends from independent Claim 14 and recites features analogous to those of dependent Claim 24. Accordingly no new matter has been added.

**CONCLUSION**

Applicant believes he has addressed all outstanding grounds raised by the Examiner and respectfully submits the present case is in condition for allowance, early notification of which is earnestly solicited.

Should there be any questions or outstanding matters, the Examiner is cordially invited and requested to contact Applicant's undersigned attorney at his number listed below.

Respectfully submitted,



---

Edward J. Howard  
Reg. No. 42,670  
Howard IP Law Group, PC  
P.O. Box 226  
Fort Washington, PA 19034  
(215) 542-5824 (Phone)  
(215) 542-5824 (Fax)  
Attorneys for Applicants